Irish Journal of Academic Practice

Volume 7 | Issue 1 Article 4

2018

Teachers' Roles in Online Learning: the Student Perspective

Qiang Huang
Guangdong University of Foreign Studies, gzmmhq@126.com

Recommended Citation

Huang, Qiang (2018) "Teachers' Roles in Online Learning: the Student Perspective," *Irish Journal of Academic Practice*: Vol. 7: Iss. 1, Article 4.
doi:10.21427/D7FN7F
Available at: https://arrow.tudublin.ie/ijap/vol7/iss1/4

Teachers' Roles in Online Learning: The Student Perspective

Huang, Qiang

School of English and Education
Guangdong University of Foreign Studies
No. 2 North Baiyun Rd. Baiyun District
Guangzhou City
Guangdong Province
China

gzmmhq@126.com

Qiang Huang has been an English teacher at university in China for 20 years. She holds an M.A. in applied linguistics from Guangdong University of Foreign Studies, and her research interests include both language teaching and assessment. Her interests in the field of online and blended learning, as well as material development and teacher development, resulted from having taught a blended English course and compiling a set of coursebooks for the course.

Abstract: This study examines how 153 university students perceived the roles of their teachers in online learning environments. Results of statistical analyses conducted using a 27-item and 5-likert-scale questionnaire showed that the Cronbach's Alpha value of the entire questionnaire was *.955 an*d those of the three sub-roles were all above *.891,* indicating that both the questionnaire and the three factors of sub-roles were reliable and valid. Further analyses revealed that the three sub-roles of teachers (i.e. cognitive, affective and managerial) were significantly different from each other: managerial was significantly higher than cognitive, while affective was the lowest. Results of descriptive statistics also revealed that keeping a record of students' learning was quite notable for students. The findings suggest that the roles of teachers in online learning as a whole were reduced. However, the managerial role was more notable than the cognitive role, while teachers obviously had exerted the least influence on affective aspects in online learning contexts. The present study

holds that these findings may offer some insight into classroom activity and make a basis for future studies of comparing teacher roles across different educational contexts.

Key words: teacher roles, online learning, cognitive role, affective role, managerial role

Introduction

The extensive incorporation of information and communication technology (ICT) into various educational contexts has brought about great changes in teaching and learning. Researchers hold that the growth of online programmes and course offerings are changing the roles of teachers and the nature of teaching. Explaining teachers' roles poses a great challenge to researchers and practitioners (Bennett & Lockyer, 2004), thus the need to clarify and scrutinise teacher roles in various instructional contexts cannot be ignored. Even though a multitude of publications and practices have proposed various theoretical conceptions and categorisations of teacher roles in different teaching contexts, few quantitative data have been collected to specify and examine teacher roles as well as any possible changes that may occur in the online learning environment (Baran, Correia & Thompson, 2011). The present study aims to quantitatively measure, through a 27-item questionnaire, how university students perceive the roles of their teachers in online learning of a blended course in English. Online learning in this context is used interchangeably with other similar terms such as computer-assisted language learning, online language learning, virtual learning, blended learning, hybrid learning and distance learning. Researchers hold that these terms often overlap with each other, with the differences having more to do with the percentage of content that is delivered online (Blake, 2011). Based on the literature review, the present study attempts to address the following research questions:

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F

1. *What are the roles of teachers in the online learning context?*
2. *How do learners perceive the roles of teachers in the online learning context?*
3. *What are the differences, if any, of teacher roles in the online learning context?*

Literature review

Prior to examining teachers' roles in the online learning context, it is first necessary to probe into the definitions of roles. Many attempts have been made by researchers to define roles, and specifically teacher roles. According to Wright (1987, p. 5), a role refers to what one does or is expected to do in a given environment and it incorporates three principal elements: the work done and job-related activities; the relationships and communications one has with others; and beliefs and attitudes. As to teacher roles, there are actually more categorisations than definitions. For example, Alvarez et al. (2009) categorised five roles of teachers: designer/planning role; social role; cognitive role; technological domain; and managerial domain. Other generalisations include pedagogical, social, managerial, and technical (Berge 1995); instructional design, organisation, facilitating discourse and direct instruction (Anderson et al. 2001); cognitive, affective, and managerial roles (Coppola et al. 2002); and Varel's (2007) administrative, personal, technological, instructional design, pedagogical, assessment and social roles. In fact, these roles have overlapped with each other and the overlapping theoretical classification becomes an obstacle for instructors to understand teacher roles and examine specific teaching behaviours related to teacher roles (Baran et al. 2011). In addition to the theoretical categorisation, some qualitative studies have been conducted to investigate teacher roles by way of case studies, collaborative action research and grounded theory (Izadinia 2015; Li & Ni 2011; Subramaniam 2010; Scott 2013; Tran & Nguyen 2015; Donnelly 2013). In contrast, quantitative studies that investigate teacher roles and tasks and

activities related to teacher roles in online learning contexts are scarce (Alvarez, Guasch & Espasa 2009; Lee 2011).

Some studies in the field of teacher role are worth attention. For example, Lam and Lawrence (2002) studied changes of the roles of teachers and students in a computer-based project in a university-level Spanish foreign language class. Through classroom observation, open-ended questionnaire and interview, the researchers found that the teacher retained the roles of expert and authority in class, and role shifts were not as significant as expected. Classroom observation revealed that the main role of the teacher in the computer lab was to answer questions, both technical and language related. The fact that the teacher was very much in demand was quite contrary to what was originally expected, suggesting that students still regarded the teacher as the main source of answers. In addition, the students also considered the teacher to be the "language police" and an authority figure. Although the researchers concluded that the teacher's role as expert and manager seems to be largely maintained in the computer lab, a few changes were still observed in the manager role of the teacher. To be more exact, the teacher no longer needed to initiate the project nor to motivate the students. Thus, "the manager role of the teacher was reduced, with some of the responsibilities of creating the learning conditions being passed on to the learners" (Lam & Lawrence 2002). In a similar case study by Donnelly (2013), the researcher looked into the complex roles of tutors in blended, problem-based learning (PBL). Based on observation, interview and self-reflective papers of the participants, Donnelly identified a few "distinct" roles for the PBL tutor within a blended learning tutorial experience: the role of being present as tutor authority and the role of tutor to help overcome ambiguity and misunderstanding. In spite of Donnelly's claim that these roles for the PBL tutor were distinct from traditional ones, these roles are also observed in

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F

face-to-face learning.

Another study of collaborative action research by Subramaniam (2010) investigated the changing roles of five second-level science teachers when they taught with computer technology. Analysis of qualitative data gained at interview, observation and discussion revealed that the changes to teaching role mainly fell into two actions: planning and managing computer technology as well as controlling students' learning activities. Subramaniam found that planning and managing computer technology was expanded and diversified to the additional roles of supporter, developer, and visualiser. The supporter role was specified as "construction of scientific knowledge by posing questions, comprehending and readdressing students' explanations and connecting the concept or topic to previous concepts or topics". The developer role was described as "the action of helping students to connect, link, construct, make and break-down the concepts presented through the attributes of animation, simulation and interactivity provided by the computer technology". The visualiser role referred to the action of "channeling the powerful imageries that computer technology afforded to focus and capture students' attention onto the concept taught".

Subramaniam's study differs from the previous studies in two ways. First, teacher roles were not defined or categorised using the terms commonly used in other studies such as "technical", "managerial", "pedagogical", and "social" roles (Baran et al. 2011). Subramaniam attempted to disintegrate the concepts of teacher roles into "actions" that teachers are likely to conduct in instructional contexts, bringing teacher roles from more general concepts to more tangible teaching-related behaviours. However, these behaviours or "actions" related to teacher roles failed to be scrutinised quantitatively due to the nature of qualitative research. Neither is the number of the

specified behaviours adequate to provide a more comprehensive understanding of teacher roles in online learning and teaching contexts. Consequently, a quantitative study of teacher roles along with teaching-related behaviours under each role is necessary to reveal the new characteristics, if there are any, or the possible changes of teacher roles in online learning context. Furthermore, the scope of qualitative research is fairly limited so its findings are not always widely generalisable and the sample sizes are often pretty small. To complement these limitations of qualitative research, quantitative studies, by employing instruments of measurement and collecting numerical data, are necessary: the results are considered to be more robust with mathematical support and can be generalised to larger population. Researchers, thus, are able to draw analogies across different contexts and conduct studies in wider scope.

Conceptual framework

This study used a 27-item questionnaire to explore teacher roles and the behaviours that teachers are likely to perform in online learning. The questionnaire was designed and constructed by Huang (2017) according to the conceptual framework of Coppola's definitions of the roles of online teachers (Coppola et al. 2002, p. 176). Coppola highlighted three main roles of online teachers: a cognitive role, an affective role and a managerial role. In particular, the cognitive role relates to the processes pertaining to learning, information storage, memory, thinking, and problem solving. The affective role includes instructor behaviours of influencing the student's relationship with the instructor and with other students, and the online classroom atmosphere. Finally, the managerial role refers to instructor behaviours related to course planning, organising, leading, and controlling. The theoretical concepts of these three roles of online teachers constitute the conceptual framework of those items in the questionnaire used. It is hoped that such quantitative measurement will help to

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F

pinpoint more specific features of teacher roles in the online learning context.

There are several reasons why Coppola's classification of online teacher roles was chosen as the conceptual framework for this study. First is the term "online learning". Although the term is used in its narrower sense in the present study, online learning has been accepted as a rather broad concept that encompasses a wide range of learning modes (Blake 2011, p. 19). Since it covers both blended or hybrid courses of the present study and the online or virtual courses of Coppola's study, online learning is thus regarded as the common area where they are related. In other words, both studies fall into the broad field of online learning. The similarity of the contexts of the two studies is also notable. Coppola's study aims at the pedagogical roles of virtual professors in an asynchronous learning network (ALN), a form of "e-learning" that also belongs to the field of online learning. The learning network is quite complicated in that it includes several variants of courses. Some of the courses had the matched sections instructed by the same teacher in a traditional classroom and using the Virtual Classroom (Coppola et al., 2002, p. 173). Likewise, the blended English course in the present study also consisted of two main parts: one setting of the traditional face-to-face classroom instruction and another setting of online language exercises. For the same class of students in this study, the same teacher was in the two settings. Both studies began from one particular learning context but are not expected to be confined to this one single context. They both seek to generalise common features instead of identifying mere individual differences from their own findings so that these findings (no matter theoretical or practical) are applicable to other similar learning contexts.

A third similarity lies with the roles of online teachers. Although different terms were used to refer to the teachers in the two studies, the teachers actually shouldered similar responsibilities. In

Coppola's study, "virtual instructor or professor" was used while "online teacher" was used in the present study. In spite of the different terms, the roles of the teachers in both studies did have something in common: they both gave face-to-face instructions in the classrooms, and they both played a role in the online parts even though the online parts were designed differently in the two studies. Such a phenomenon is quite common in the literature. "Various terms are used in online learning to describe online teacher roles, for example, online teacher, e-moderator, online tutor, facilitator, or online instructor" (Baran et al. 2011, p. 422). Considering the similar responsibilities, the roles of the online teachers in this study are thus examined in the same framework outlined by the conceptual categories of online teacher roles in Coppola's study. Furthermore, Coppola's study suggested that "the roles enacted by instructors in traditional settings are also enacted in ALN environments" (Coppola et al. 2002, p. 186). In other words, the three main roles of online teachers (cognitive, affective and managing) are also part of the roles of traditional instructors and are actually shared by both traditional and online teachers. These definitions constitute the conceptual framework of the present study, which was conducted in a blended course that consists of both traditional instruction and online learning of English language exercises. Researchers have created taxonomies and models specifying the roles that online teachers need to perform while teaching online. Although the studies addressing these roles show variety in both the contexts and the definitions of online teachers, commonalities do exist. Indeed, it is these commonalities that justify the conceptual framework for the present study and relate this study to the whole body of relevant literature in the field.

Methodology

The study was conducted at a university in Southern China where a blended English course has

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F

been adopted for all non-English majors. The course consists of traditional face-to-face (f2f) instruction and online learning, and lasts 36 weeks in total over one academic year. F2f instruction occupies four periods a week in physical classrooms and online learning takes up two periods a week. Students can continue online learning beyond the designated time, either on or off campus, if they could not finish the exercises in time. In f2f instruction, teachers use English textbooks and give instruction to students in the classroom. In contrast, students in online learning complete online exercises on their own. The online context provides students with various learning resources and different language exercises such as listening, speaking, reading and writing on computers. In addition, learner–learner interaction, learner–instructor communication and feedback from instructors are also made possible in the virtual chatroom of the online learning platform. The design of the blended English programme shows that teachers are present in both f2f instruction and online learning, but obviously play different roles in the two learning contexts due to the nature of the course structure. It is hold that such changes of delivery format are likely to bring about new characteristics and possible changes of teacher roles, especially in online learning.

Participants were students who participated in the blended English course in their first year at university. Their majors ranged from accounting, business and IT to journalism. These students were of similar ages and had similar English proficiency due to the same enrolment criteria of the university. After the researcher introduced the nature and purpose of the academic research, a total of 153 students agreed to join in and completed the questionnaires. Consequently, these students were all random sample subjects as a result of voluntary participation in the research.

The instrument (A Scale of Teacher Role Inventory – STRI) adopted in the study was a five-point

Likert scale. The 27 items of the instrument describe specific behaviours of teachers in online learning environment (see Appendix). Specifically, items 1–10 deal with cognitive role, items 11–20 are related to affective role, and items 21–27 refer to managerial role. These items were developed and constructed on the basis of the conceptual framework of Coppola's research and several other resources such as the description of teacher roles and the responses of students in previous studies (Huang 2017).

The research was conducted near the end of one academic year at when students had completed the blended English course which had run for the whole academic year. The questionnaires were administered to 153 students. A series of statistical analyses were done to test the reliability and validity of both the entire instrument and the respective sub-roles. Descriptive data of each item helped to describe in detail how participants perceived teachers' behaviours in online learning. Most importantly, a T-test of the three main roles revealed not only possible new characteristics or changes of teacher roles but also the differences of the sub-roles of instructors in online learning.

Results

First of all, a reliability and validity test was conducted to validate the instrument used in this study. (Results of this test are listed in Table 1.)

Table 1. Cronbach alpha values of the STRI (n=153)

	The overall instrument	Factor 1 cognitive role	Factor 2 affective role	Factor 3 managerial role
Cronbach Alpha	.955	.932	.891	.899

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F

value

Data in Table 1 demonstrate that the Cronbach Alpha value of the overall instrument was .955 and those of the three main factors were .932, .891, .899, suggesting excellent reliability. Generally speaking, factors in a questionnaire with values above .60 are acceptable and one with value above .80 is considered to be pretty good (Wu 2012, p. 244). The Cronbach Alpha values of the three main factors in this study all went up to and even above .90, which means the three main factors underlying the structure of the questionnaire were highly valid and those items describing teachers' behaviour under each factor of sub-roles made much contribution to the conceptual constructs.

In order to probe into the 27 items that describe teachers' behaviour under each main factor of the sub-role, descriptive statistical analyses of all the items were done (participants' responses to each item in the three main factors will be presented part by part). Figure 1 presents the cumulative percentages of each item in factor 1 of cognitive role from the highest to the lowest. The data focus on only the positive responses of learners towards each item (i.e. the cumulative percentages of participants who chose to "agree" or "strongly agree" to the items of factor 1).

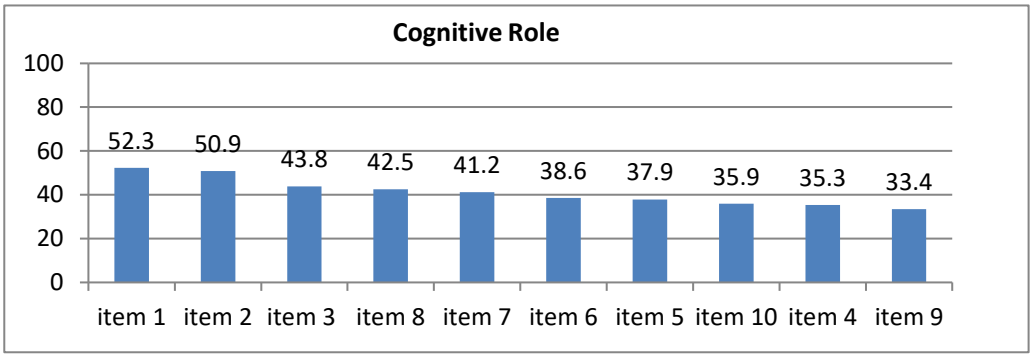

Figure 1. Cumulative percentages of participants' responses to the 10 items of cognitive role

As shown in Figure 1, item 1 had the highest cumulative percentage of participants (52.3%) who agreed or strongly agreed to the statement. This suggested that over half of the participants agreed or strongly agreed that teachers use of videos facilitated English learning in the online learning context. Another two items with higher cumulative percentages were item 2 (50.9%) and item 3 (43.8%), which described teachers' use of English audios, websites and web pages to assist students with learning. These three items all dealt with technology-mediated instruction and served to reveal how ICT had influenced teaching in the online learning context. Instructors attempted to facilitate cognitive learning by resorting to media such as audio, video and websites or web pages which characterized many online learning contexts (Li & Walsh 2010; Hu & McGrath 2011; Li & Ni 2011). In contrast, item 9 had the lowest cumulative percentages of 33.4% among the 10 items. This reflects the fact that teachers did not play much role in helping students to correct mistakes in the process of online learning exercises, as the learning programme automatically checked the online exercises.

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F

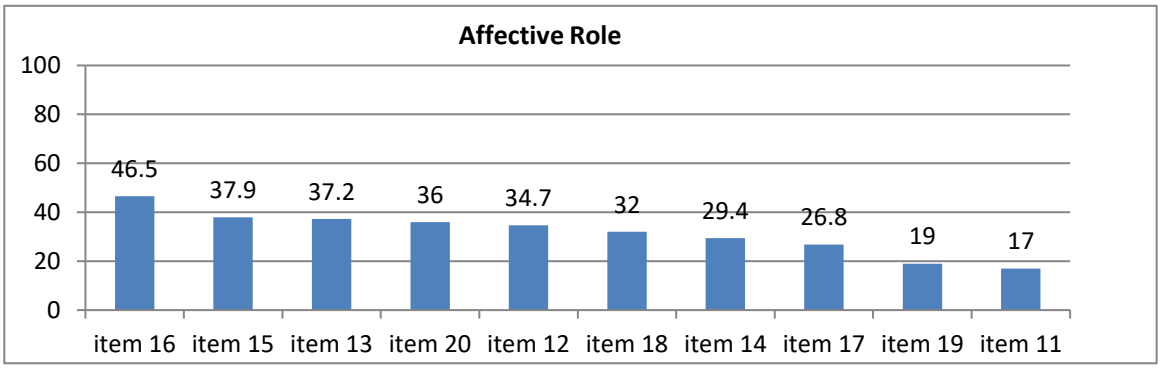

Figure 2. Cumulative percentages of participants' responses to the 10 items of affective role

In a similar vein, Figure 2 displays the data of the 10 items of factor 2. Item 16 (encouraging learners to explore answers on their own) had the highest cumulative percentage at 46.5%. Such findings corresponded well to the condition of online learning where students were supposed to learn with higher degree of autonomy (Lai, Yeung & Hu 2015). On the other hand, Item 11 ranked the lowest at 17% – that is to say, very few students recognised that games were often used in online learning. The data suggested that language games in this study did not appear to be one of the common behaviours of instructors to establish a connection with learners or to create a lively atmosphere in online learning.

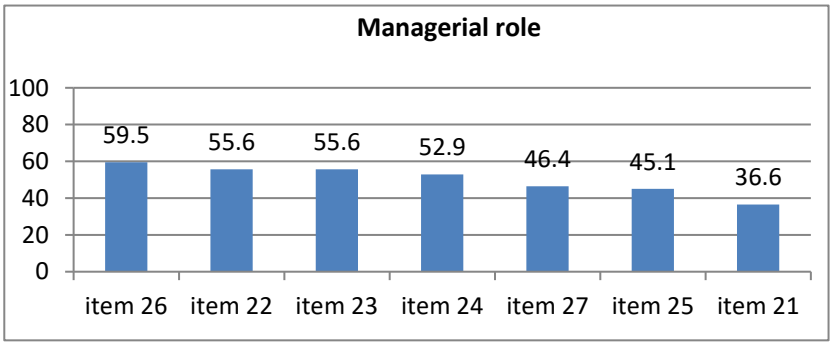

Figure 3. Cumulative percentages of participants' responses to the 7 items of managerial role

Regarding managerial role, item 26 showed the highest cumulative percentage of 59.5% – in other

words, more than half of the learners agreed or strongly agreed that teachers kept a record of students' exercises in online learning. Participants' responses indicated that it was important for instructors to monitor learners in online learning (Coppola et al. 2002). In contrast, only one-third of the participants agreed or strongly agreed that teachers needed to make plans for their students' learning: item 21 which dealt with this had the lowest cumulative percentage of 36.3%. Such a result reveals that most learners commanded a certain degree of learning autonomy and regarded making learning plan as more of their own duty than the responsibility of their teachers.

In addition to the descriptive data of all the 27 items in the STRI, the study also calculated the item means of each factor. Table 2 lists the descriptive statistics of item means of the three factors.

Table 2. Descriptive statistics of item means of the three factors of the STRI (n = 153)

Factors	Item means of the factors	SD	SE
Managerial role	3.484	.836	.676
Cognitive role	3.297	.883	.071
Affective role	3.111	.761	.068

Table 2 shows all the three means were quite moderate, indicating that the roles of teachers as a whole were somewhat reduced and thus not very notable in online learning. Furthermore, the three sub-roles of online teachers did not have the same weight in the same learning context. To be more exact, managerial role had the highest item means of 3.484 whereas affective role had the lowest item means of 3.111, indicating that teachers in this study were regarded as playing a greater role in class management while they exerted the least influence on affective aspects. Cognitive role, with

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F

the item means of 3.297, went in between the two sub-roles. To further reveal the relationship among the three sub-roles of teachers in online learning, a T-test of the item means of the three sub-roles was conducted to find out whether significant differences existed among them (see Table 3).

Table 3. Results of T-test of the item means of the three main factors of the STRI

		Paired Differences					t	df	Sig.(Two-tailed)
					95% Confidence Interval of the Difference				
		Means	SD	SE	Max	Min			
Pair 1	Managerial - Cognitive	.187	.776	.063	.063	.311	2.980	152	*.003*
Pair 2	Cognitive – affective	.186	.489	.040	.108	.264	4.693	152	*.000*
Pair 3	Managerial – Affective	.373	.695	.056	.262	.484	6.632	152	*.000*

Table 3 demonstrates that the mean differences were all significantly different from one another even though the mean differences were quite minor. In particular, the mean difference between managerial role and cognitive role was .187. The *t* value was 2.980 with 152 degrees of freedom. This *t* value was significant at the .05 alpha ($p = .003$). In other words, significant difference existed between managerial role and cognitive role with managerial role reporting higher item means than cognitive role. Similarly, cognitive role was found to be significantly different from affective role as well with the mean difference of .186 and the *t* value of 4.693 ($df = 152$, $p = .000$). Finally, the mean difference between managerial role and affective role was .373. The *t* value was 6.632 with 152 degrees of freedom. This *t* value was significant at the .05 alpha (p = .000). That is to say, there was also significant difference between managerial role and affective role with the item means of

managerial role higher than that of affective role. Overall, results of t-test revealed that the item means of the three main factors were significantly different from each other, with the item means of managerial role being the highest, followed by cognitive role, whereas affective role had the lowest item means. The data suggest that, in learners' views, teachers played a greater role in class management but contributed less to cognitive learning processes and exerted the least influence on affective aspects in online learning context. Such findings prove to be more specific in presenting the characteristics of the different roles that teachers have played in online learning.

Discussion

In this section, the statistical results are discussed in more detail in relation to the findings of previous studies. For instance, under factor 1 of cognitive role, instructors may perform 10 different teaching-related behaviours to facilitate learners' cognitive learning processes and these behaviours do not always take the same effect in the same learning environment. Items 1, 2 and 3 centre on the technology that teachers have applied in online learning to assist learners with their learning, and these items had the top cumulative percentages of positive responses (52.3%, 50.9%, 43.8%) and were most recognised by learners. **P**revious research in this respect have shown overlapping and contradictory findings. Some studies highlight technological roles as a distinct category of teacher roles (Alvarez et al. 2009, p. 332; Lee 2011, p. 923; Subramaniam 2010, p. 945). Other studies have regarded it as a different category such as "instructional methods", "orientation to the classroom", "the role of expert and manager", and "managerial role", (Koc 2011, p. 200; Coppola et al. 2002, p. 180; Lam & Lawrence 2002, p. 302). Evidently more research is necessary in the area. But despite the lack of consensus on a theoretical level and in empirical studies, the highest means of item 1, 2, and 3 of cognitive role in this study indicated that students had better recognition of the use of ICT

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F

by their teachers in online learning. Indeed, studies found that students did incorporate technological resources recommended and shared by teachers.

Teachers' application of technologies and advice on what technologies to use and how to use also affect the types of activities that students engage in and their relevant learning processes (Lai et al. 2015, p. 3). Students were also found to have higher expectations on how teachers can teach and help learning with technology in online classes (Lai et al. 2015, p. 15). Technological applications are by no means limited to the use of video, audio, English-language websites and English web pages as described in this study. Other technology-based instruction incorporates the use of ICT for different pedagogical designs and purposes such as mobile apps, audio and video conferencing tools, discussion forums, movies, news and online courses on YouTube, as well as social networking tools such as Facebook (Lee 2011; Lai et al. 2015). In response to the need of technological application in online learning, teacher training should be geared to integrating technology with pedagogy. Teachers, thus, can first learn to use basic ICT tools and media, then select suitable technologies to match online learning tasks, and finally creatively adapt existing technology for online learning (Compton 2009, p. 80).

The other 7 items in cognitive role (4 to 10) are related to what teachers can do in the cognitive aspects of learning. The means of these seven items all gathered around the third-point scale of neither disagree nor agree. Such moderate means revealed that cognitive role was not very impactful in the online environment. In traditional teacher-centred classroom instruction, teachers act as the expert and authority who provide resources and answers (Lam & Lawrence 2002, p. 295). In contrast, the online learning programme in this study offered ample learning resources, actually

much more than what any individual teacher can offer: for example, it can also automatically check answers and provide guidance. Presumably, these functions have reduced students' reliance on teachers and thus decentralised the roles of teachers in the online learning. Therefore, teachers are likely to move from the pivotal position to the status of "guiding on the side" and they are expected to adopt facilitative approaches in creating learner-centred online learning (Anderson et al. 2001, p.13). In fact, in this study there was little communication online either between teachers and students or among students themselves. According to Huang (2016, p. 27), students lacked immediate feedback or support in online learning, making it more like a drill centre or a resource. With very limited online guidance and direction, the cognitive role of teachers in online learning were likely to be reduced in this study.

As to affective role, the 10 items in this group also help reveal certain characteristics. Generally speaking, in order to encourage students to explore answers on their own (item 16) and help them to stay focused (item 15), teachers have to promote more online communication through various ways such as encouraging students to exchange ideas (item 13), express feelings (item 12) and bringing up more discussions (item 20). In fact, items 16, 15, and 13 in this study did have the highest means among the group, which in turn validated the corresponding situation in the online learning. Learners considered it to be important for instructors to keep an eye on online discussions and exercises (Donnelly 2013, p. 138). It is also believed that the co-presence of online teacher in the online classroom could help make the learning environment less distant (Harms et al. 2006, p. 1). Nonetheless, the means of item 14 (the teacher brings students closer to each other) was only 3.03 and stayed nearly at the foot of the whole group. The lower means may indicate that most students did not feel closer to each other in spite of the presence of their teachers in the online environment

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F

all the time. The findings indicate that teachers' presence alone is not enough.

The reasons may be manifold. Data of item 11 which had the lowest means of 2.69 among the whole scale may provide some insight. Item 11 refers to whether the teacher had led students to play games to learn English and. Researchers hold that games are always task-oriented and often accomplished by working in groups (Blake 2011, p. 27). Although games are considered to be a viable way to stimulate language learning, they did not seem to be very prominent in this study. Neither did they seem to have facilitated the atmosphere in the online learning. Another reason might be that students lacked a sense of community and social cohesion both in the computer labs and online. Researchers found that students tend to feel closer to each other in a successfully-fostered online community and thus persist in learning (Senior 2010, p.144). Hampel and Stickler (2005, p. 318) noted that meaningful communicative interaction would not take place in instructional settings that lacked social cohesion and that learner–learner and learner–instructor interaction played crucial roles, especially in promoting successful language learning. Obviously, the online environment does change both the nature and the medium of the interaction between instructors, learners and contents. Such changes in turn require re-examination of the roles that teachers take in enhancing students' learning (Baran et al. 2011, p. 421) and justify the need for more research into the emotional impact of the transition from f2f instruction to online learning (Donnelly 2013, p. 140).

Compared with the first two sub-roles, managerial role has the highest item means of the whole instrument, in particular, item 26 (keeping a record of students' exercises) which had the highest percentage (59.5) and also the highest means (3.71) not only in managerial role but also among the

entire instrument. It means that recordkeeping was regarded as the most distinct aspect of teacher roles in online learning in this study. The findings were different from Lee's conclusion that "be clear" was the most important aspect of managerial role (Lee 2011). In fact, recordkeeping has been incorporated in managerial role by many researchers but with different terms. For example, Coppola et al. (2002) described it as "tracking students down" and classified it as one of the organising behaviours of managerial role. Aydin's study (2005), and Bawane and Spector's study (2009), also referred to it as "student registration" and "recordkeeping" under the construct of managerial role. Other items of managerial role such as "making learning plan, teaching schedule, setting up rules and disciplining the class" also help to describe more accurately the teaching behaviours related to managing online learning. In previous studies (Lee, 2011, p. 923), however, some descriptions of the managerial role such as "Don't overload", "manage time properly" and "be patient" appeared quite limited and vague to reveal characteristics of online teachers.

That the managerial role of teachers was considered to be the most notable makes this study distinct from the findings of previous research. Lam and Lawrence (2002, p. 303) found ICT caused limited changes of teacher roles in the managerial area where teachers did not have to initiate the project or motivate the students as much as in the traditional classrooms. The researchers concluded that "the manager role of the teacher was reduced, with some of the responsibilities being passed on to the learners". However, in this study, teachers were perceived to play a greater role across different aspects of class management, ranging from discipline, recordkeeping, rules and regulations to schedule and plan. Such monitoring of instructors is supposed to help learners in online learning and prevent them from dropping out in the middle. This might be one of the most significant ways in which teachers can promote online learning for learners.

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F

Conclusion

The overall findings in this study suggest that teachers in online learning are present but not pivotal, helpful but not imposing, and contributive but not authoritative. This research examines three main roles of teachers – cognitive, managerial and affective – which do not seem to have the same effects in online learning. For example, among the 27 specific teaching behaviours of online teachers, recordkeeping of the online exercises proved to be the most significant to learners, while leading students to learn English by playing games was regarded as the least important. More importantly, cognitive role, affective role and managerial role were found to be significantly different from each other. In particular, managerial role of online teachers was considered to be the most significant to students. Teachers, in students' views, played a smaller role on cognitive processes and had the least influence on affective aspects of online learning.

The findings of the study suggest that teacher training and education should offer guidance for teachers to adjust their behaviours in online teaching. For example, since teachers have the least play in affective aspects of online learning, it is then necessary to gear teacher training in the direction of facilitating positive instructor–learner relationships and in building a helpful virtual classroom atmosphere. To fulfil this goal, teachers need new skills that are obviously different from those in traditional instructions, which could be made one of the focuses of teacher training and education in the future. If their affective role is what teachers need to enhance and strengthen, then their cognitive role will be where the roles of teachers should be decentralised. Teachers can therefore adjust their behaviours to guide on the side rather than teaching in the centre of a virtual

class. As to the most significant role of managing online learning, teachers can carry on the specific behaviours identified in the STRI to monitor and encourage students to learn online, which proves to be better recognised by learners in this study.

Although few attempts have been made thus far to quantitatively measure teacher roles in relation to the sub-roles and their specific teaching behaviours in online learning, there are limitations when the generability of the study is considered. As the study only researched students' perceptions of online teachers, it would be more revealing if it had compared students' perceptions of teacher roles in the online learning context with those in other instructional contexts. Besides, no follow-up interview was conducted with participants to explain what had contributed to the characteristics found. Future studies may look into teacher roles across various instructional settings rather than only in the online learning context. Comparisons could also be made between teacher roles in different learning environments so that a more complete picture could be presented for both the benefits of researchers and instructors and ultimately the improvement of online learning.

References:

Alvarez, I., Guasch, T., & Espasa, A. (2009). University teacher roles and competencies in online learning environment: a theoretical analysis of teaching and learning practices. *European Journal of Teacher Education*, 31 (3), 321-336.

Anderson, T., Rourke, L., Garrison, D., & Archer, W. (2001). Assessing teaching presence in a computer conferencing context. *Journal of Asynchronous Learning Networks*, 5(2), 1-17.

Aydin, C. (2005). Turkish mentors' perception of roles, competencies and resources for online teaching. *Turkish Online Journal of Distance Education*, 6 (3).

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F

Baran, E., Correia, A, P. & Thompson, A., (2011), Transforming online teaching practice: critical analysis of the literature on the roles and competencies of online teachers. *Distance Education*, 32 (3), 421-439.

Bawane, J., & Spector. J. (2009). Prioritization of online instructor roles: implications for competency-based teacher education programs. *Distance Education*, 30 (3), 383 -397.

Bennett, S., & Lockyer., L. (2004). Becoming an online teacher: Adapting to a changed environment for teaching and learning in higher education. *Educational Media International*, 41(3), 231-248. Doi: 10.1080/09523980410001680842

Berge, Z. L., (1995). Facilitating computer conferencing: recommendations from the field. *Educational Technology*, 35 (1), 22-30.

Blake, J. R., (2011). Current trends in online language learning. *Annual Review of Applied Linguistics*, 31, 19-35.

Compton, L. K.L., (2009). Preparing language teachers to teach language online: a look at skills, roles, and responsibilities. *Computer Assisted Language Learning*, 22 (1), 73-99.

Coppola, N. W., Hiltz, S. R., & Rotter, N. G. (2002). Becoming a virtual professor: Pedagogical Roles and asynchronous learning networks. *Journal of Management Information Systems*, 18 (4), 169-189.

Donnelly, R. (2013). The role of PBL tutor within blended academic development. *Innovations in Education and Teaching International*, 50 (2), 133-143.

Guasch, T., Alvarez, L, & Espasa, A. (2010). University teacher competencies in a virtual teaching /learning environment: Analysis of a teacher training experience. *Teaching and Teacher Education*, 26(2), 199-206.

Hampel, R., & Stickler, U. (2005). New skills for new classrooms: Training tutors to teach

languages online. *Computer Assisted Language Learning*, 18 (4), 311-326.

Harms, C., Niederhauser, D., Davis, N., Roblyer, M.D., & Gilbert, S. (2006). Educating educators for virtual schooling: Communicating roles and responsibilities. *Electronic Journal of Communication*, 16(1&2).

Hiltz, S. (1994). The virtual classroom: Learning without limits via computer networks. Norwood, NJ: Ablex.

Hu, Z., & McGrath, I. (2011). Innovation in higher education in China: are teachers ready to integrate ICT in English language teaching? *Technology, Pedagogy and Education*, 20 (1), 41–59.

Huang, Q. (2016). Learners' perceptions of blended learning and the roles and interaction of f2f learning and online learning. *The ORTESOL Journal*, 33: 14-33.

Huang, Q. (2017). Development of an instrument to explore teacher roles based on perceptions of English learners in online learning context. *Cross-cultural Communication*, 13(5), 1-13.

Izadinia, M. (2015). A closer look at the role of mentor teachers in shaping pre-service teachers' professional identity. *Teaching and Teacher Education*, 52, 1-10.

Jones, C.M. & Youngs, B.L (2006). Teacher preparation for online language instruction. In P. Hubbard & M. Levy (Eds). Teacher education in CALL (pp. 267-282). Philadelphia: John Benjamins Publishing Company.

Lai, C., Yeung, Y., & Hu, J. (2015). University Student and teacher perceptions of teacher roles in promoting autonomous language learning with technology outside the classroom. *Computer Assisted Language learning*.

Lam, Y., & Lawrence, G. (2002). Teacher-Student role redefinition during a computer-based second language project: are computers catalysts for empowering change? *Computer Assisted Language Learning*, 15(3), 295-315.

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F

Lee, D. Y. (2011). Korean and foreign students' perceptions of the teacher's role in a multicultural online learning environment in Korea. *Education Tech Research Dev*, 59, 913-935.

Li, G. & Ni, X. (2011). Primary EFL teachers' technology use in China: Patterns and Perceptions. *RELC*, 41 (1), 69-85.

Li, L., & Walsh, S. (2010). Technology uptake in Chinese EFL classes. *Language Teaching Research*, 15(1), 99-125.

Tran, L. T. & Nguyen, N. T. (2015). Re-imagining teachers' identity and professionalism under the condition of international education. *Teachers and Teaching*, 21 (8), 958-973.

Salmon, G. (2003). E-moderating: The key to teaching and learning online (2nd ed.). London: RoutledgeFalmer.

Scott, K. M. (2013). Does a university teacher need to change e-learning beliefs and practices when using a social networking site? A longitudinal case study. *British Journal of Educational Technology*, 44 (4), 571-580.

Smith, T. (2005). Fifty-one competencies for online instruction. The Journal of Educators Online, 2(2), 1-18.

Subramaniam. K., (2010). Understanding changes in Teacher roles through collaborative action research. *J Sci Teacher Educ.*

Varvel, V. (2007). Master online teacher competencies. *Online Journal of Distance Learning Administration*. 10(1).

Wang, Y. M. (2002). When technology meets beliefs: Preservice teachers' perception of the teacher's role in the classroom with computers. *Journal of Research on Technology in Education*, 35 (1), 150-161.

Wright, T. (1987). *Roles of teachers and Learners*. Oxford: Oxford University Press.

Wu, M. L. (2012). *Statistical Analysis of Questionnaire: SPSS Operation and Application*. Chongqing: Chongqing University Press.

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F

Appendix

The Scale of Teacher Role Inventory (STRI)

Dear Students,
The purpose of this survey is to find out your beliefs of teachers' roles in online English learning. The questionnaire is not a test and there is no "right" or "wrong" answer to all the questions. The results of the investigation will be used only for research purposes so please give your answers truthfully to ensure the success of the survey. Thank you very much in advance for your cooperation!

Name: _____
Major: _____
Which year at university: _____

Instruction:

Please circle a number from 1 – 5 to tell us how much you agree or disagree with the following statements.

Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
1	2	3	4	5

Teacher roles in online English learning					
1. The teacher uses videos to help students to learn English.	1	2	3	4	5
2. The teacher uses audios to help students to learn English.	1	2	3	4	5
3. The teacher recommends English websites/web pages to students to learn English.	1	2	3	4	5
4. With the explanation of the teacher, the focus of the learning materials becomes clearer.	1	2	3	4	5
5. The teacher helps students to overcome misunderstandings.	1	2	3	4	5
6. The teacher helps students to analyze the learning content.	1	2	3	4	5
7. The teacher makes comment on students' work.	1	2	3	4	5
8. The teacher gives advice on doing exercises.	1	2	3	4	5
9. The teacher helps students to correct mistakes.	1	2	3	4	5
10. The teacher shows students the right direction of doing activities.	1	2	3	4	5

11. The teacher leads students to play games to learn English.	1 2 3 4 5
12. The teacher encourages students to express their feelings in English.	1 2 3 4 5
13. The teacher encourages students to exchange ideas in English.	1 2 3 4 5
14. The teacher brings students closer to each other.	1 2 3 4 5
15. The teacher helps students to stay focused.	1 2 3 4 5
16. The teacher encourages students to explore answers on their own.	1 2 3 4 5
17. While learning English, I feel confident of myself because of the teacher.	1 2 3 4 5
18. The teacher makes English learning interesting to me.	1 2 3 4 5
19. The teacher makes English learning stressful to me.	1 2 3 4 5
20. The teacher brings up different issues for discussion.	1 2 3 4 5

21. The teacher makes learning plan for students.	1 2 3 4 5
22. The teacher makes teaching schedule in class.	1 2 3 4 5
23. The teacher controls learning pace.	1 2 3 4 5
24. The teacher disciplines the class.	1 2 3 4 5
25. The teacher sets up rules and regulations for doing activities.	1 2 3 4 5
26. The teacher keeps a record of students' exercises.	1 2 3 4 5
27. The teacher adapts the exercises to meet students' needs.	1 2 3 4 5

https://arrow.tudublin.ie/ijap/vol7/iss1/4
DOI: 10.21427/D7FN7F